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09/913,893

09/21/2001

Jarmo Makinen

4925-135PUS

6005

7590

01/24/2005

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EXAMINER

HAN, CLEMENCE S

ART UNIT

PAPER NUMBER

2665

DATE MAILED: 01/24/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

**Office Action Summary**

Application No.

09/913,893

Applicant(s)

MAKINEN, JARMO

Examiner

Clemence Han

Art Unit

2665

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 21 September 2001.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-9 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-9 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 21 September 2001 is/are: a) ☐ accepted or b) ☒ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some \* c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)  
Paper No(s)/Mail Date See Continuation
- 4) ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date. \_\_\_\_\_
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: \_\_\_\_\_

12/06/04, 6/25/04, 9/03/03 and 8/20/01

## **DETAILED ACTION**

### ***Drawings***

1. Figure 1 and 2 should be designated by a legend such as --Prior Art-- because only that which is old is illustrated. See MPEP § 608.02(g). Corrected drawings in compliance with 37 CFR 1.121(d) are required in reply to the Office action to avoid abandonment of the application. The replacement sheet(s) should be labeled "Replacement Sheet" in the page header (as per 37 CFR 1.121(d)) so as not to obstruct any portion of the drawing figures. If the changes are not accepted by the examiner, the applicant will be notified and informed of any required corrective action in the next Office action. The objection to the drawings will not be held in abeyance.

### ***Specification***

2. This application does not contain an abstract of the disclosure as required by 37 CFR 1.72(b). An abstract on a separate sheet is required.
3. The following guidelines illustrate the preferred layout for the specification of a utility application. These guidelines are suggested for the applicant's use.

### **Arrangement of the Specification**

As provided in 37 CFR 1.77(b), the specification of a utility application should include the following sections in order. Each of the lettered items should appear in upper case, without underlining or bold type, as a section heading. If no text follows the section heading, the phrase "Not Applicable" should follow the section heading:

- (a) TITLE OF THE INVENTION.
- (b) CROSS-REFERENCE TO RELATED APPLICATIONS.
- (c) STATEMENT REGARDING FEDERALLY SPONSORED RESEARCH OR DEVELOPMENT.
- (d) INCORPORATION-BY-REFERENCE OF MATERIAL SUBMITTED ON A COMPACT DISC (See 37 CFR 1.52(e)(5) and MPEP 608.05. Computer program listings (37 CFR 1.96(c)), "Sequence Listings" (37 CFR 1.821(c)), and tables having more than 50 pages of text are permitted to be submitted on compact discs.) or REFERENCE TO A "MICROFICHE APPENDIX" (See MPEP § 608.05(a). "Microfiche Appendices" were accepted by the Office until March 1, 2001.)
- (e) BACKGROUND OF THE INVENTION.
  - (1) Field of the Invention.
  - (2) Description of Related Art including information disclosed under 37 CFR 1.97 and 1.98.
- (f) BRIEF SUMMARY OF THE INVENTION.
- (g) BRIEF DESCRIPTION OF THE SEVERAL VIEWS OF THE DRAWING(S).
- (h) DETAILED DESCRIPTION OF THE INVENTION.
- (i) CLAIM OR CLAIMS (commencing on a separate sheet).
- (j) ABSTRACT OF THE DISCLOSURE (commencing on a separate sheet).
- (k) SEQUENCE LISTING (See MPEP § 2424 and 37 CFR 1.821-1.825. A "Sequence Listing" is required on paper if the application discloses a nucleotide or amino acid sequence as defined in 37 CFR 1.821(a) and if the required "Sequence Listing" is not submitted as an electronic document on compact disc).

4. The disclosure is objected to because of the following informalities: There is a typographical error in page 2 line 18. "transmitter unit 107" should be "transmitter unit 111". Also, there is a typographical error in page 9 line 16. "GMS" should be "GSM". Appropriate correction is required.

***Claim Objections***

5. Claim 1 and 3 are objected to because of the following informalities: The term "substantially" in claim 1 and 3 is a relative term which renders the claim indefinite. Appropriate correction is required.

***Claim Rejections - 35 USC § 102***

6. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

7. Claim 1 and 3 are rejected under 35 U.S.C. 102(b) as being anticipated by Magana (WO 97/21287).

Regarding to claim 1, Magana teaches a data transmission method of a radio link system between a central station and at least one substation, characterized in that the central station transmits a time division multiplex signal at a first frequency, the central station receives signals of said at least one substation at a second frequency, said second frequency being a different frequency than said first frequency and said signals of said at least one substation at said second frequency forming a time division multiple access signal, each of said at least one substation receives substantially at said first frequency during certain first time periods

corresponding to the substation in question, and each of said at least one substation transmits substantially at said second frequency during certain second time periods corresponding to the substation in question, whereby said first time periods are different time periods than said second time periods (Page 3 Line 5-9, also see Figure 3).

Regarding to claim 3, Magana teaches a radio link system comprising a central station and at least one substation, characterized in that the central station comprises means 124 for discriminating reception signals from transmission signals on the basis of frequency (Page 8 Line 4-2 from the bottom), and in that the central station is arranged so as to transmit, a time division multiplex signal at a first frequency and receive a time division multiple access signal at a second frequency, and in that the substation is arranged so as to receive substantially at said first frequency during certain first time periods corresponding to the substation in question and to transmit substantially at said second frequency during certain second time periods corresponding to the substation in question, whereby said first and second time periods are different time periods and signals transmitted by said at least one substation at said second frequency are arranged to form said time division multiple access signal (Page 3 Line 5-9, also see Figure 3).

***Claim Rejections - 35 USC § 103***

8. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

9. Claim 2 and 4 are rejected under 35 U.S.C. 103(a) as being unpatentable over Magana in view of Lenzo et al. (WO 99/26437).

Regarding to claim 2, Magana teaches a data transmission method of a radio link system between a central station and at least one substation, characterized in that the central station transmits a time division multiplex signal at a first frequency, the central station receives signals of said at least one substation at a second frequency, said second frequency being a different frequency than said first frequency and said signals of said at least one substation at said second frequency forming a time division multiple access signal, each of said at least one substation receives substantially at said first frequency during certain first time periods corresponding to the substation in question, and each of said at least one substation transmits substantially at said second frequency during certain second time periods corresponding to the substation in question, whereby said first time periods are different time periods than said second time periods (Page 3 Line 5-9, also see



Figure 3). Magana, however, does not teach the central station controls the time periods used for transmission and reception by the substations. Lenzo teaches the central station controls the time periods used for transmission and reception by the substations (Page 10 Line 21-23). It would have been obvious to one skilled in the art to modify Magana to use the central station to control the time periods as taught by Lenzo as a design choice (Page 10 Line 13-23).

Regarding to claim 4, Magana teaches a radio link system comprising a central station and at least one substation, characterized in that the central station comprises means 124 for discriminating reception signals from transmission signals on the basis of frequency (Page 8 Line 4-2 from the bottom), and in that the central station is arranged so as to transmit, a time division multiplex signal at a first frequency and receive a time division multiple access signal at a second frequency, and in that the substation is arranged so as to receive substantially at said first frequency during certain first time periods corresponding to the substation in question and to transmit substantially at said second frequency during certain second time periods corresponding to the substation in question, whereby said first and second time periods are different time periods and signals transmitted by said at least one substation at said second frequency are arranged to form said time division multiple access signal (Page 3 Line 5-9, also see Figure 3). Magana,

however, does not teach the central station is adapted so as to select said first and second time periods. Lenzo teaches the central station is adapted so as to select said first and second time periods (Page 10 Line 21-23). It would have been obvious to one skilled in the art to modify Magana to use the central station to select the time periods as taught by Lenzo as a design choice (Page 10 Line 13-23).

10. Claim 5-9 are rejected under 35 U.S.C. 103(a) as being unpatentable over Magana in view of Delprat et al. (US 5,617,412).

Regarding to claim 5-9, Magana teaches a radio link system. Magana, however, does not teach a specific system. Delprat teaches it is located in a GSM mobile communication system (Column 1 Line 11-13). A GSM mobile communication system, a UMTS mobile communication system, a broadband data transmission system, a LMDS system and a HiperAccess system are all well known in the art radio link system. It would have been obvious to one skilled in the art to modify Magana to be used in a specific system as taught by Delprat as a design choice.

### ***Conclusion***

11. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

The following patents are cited to further show the state of the art with respect to the invention in general.

U.S. Patent 5,566,168 to Dent

U.S. Patent 5,689,502 to Scott

U.S. Patent 5,889,814 to Simmons

U.S. Patent 6,269,086 to Magana et al.

U.S. Patent 6,351,458 to Miya et al.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Clemence Han whose telephone number is (571) 272-3158. The examiner can normally be reached on Monday-Thursday 7 - 5.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Huy Vu can be reached on (571) 272-3155. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

C. H.

Clemence Han  
Examiner  
Art Unit 2665



ALPUS H. HSU  
PRIMARY EXAMINER